A SURVEY OF THE LITERATURE RELATIVE TO THE
EDUCATIONAL PLACEMENT OF HARD OF HEARING CHILDREN

by

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STATEMENT BY AUTHOR

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Method</td>
<td>2</td>
</tr>
<tr>
<td>Operational Definitions of Terms and Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Summary</td>
<td>7</td>
</tr>
<tr>
<td><strong>II. HISTORICAL REVIEW OF METHODS OF INSTRUCTION.</strong></td>
<td>9</td>
</tr>
<tr>
<td>Pre-sixteenth Century Treatment and Methods of Instruction of the Deaf</td>
<td>9</td>
</tr>
<tr>
<td>Sixteenth Century Education of the Deaf</td>
<td>11</td>
</tr>
<tr>
<td>Seventeenth Century Methods of Instruction</td>
<td>11</td>
</tr>
<tr>
<td>Eighteenth Century Methods of Instruction</td>
<td>13</td>
</tr>
<tr>
<td>Nineteenth Century Methods of Instruction in the United States</td>
<td>14</td>
</tr>
<tr>
<td>Growth and Expansion of Oral Instruction from 1930 to the Present</td>
<td>23</td>
</tr>
<tr>
<td>Summary</td>
<td>25</td>
</tr>
<tr>
<td><strong>III. THEORIES RELATIVE TO THE EDUCATIONAL PLACEMENT OF HEARING IMPAIRED CHILDREN</strong></td>
<td>27</td>
</tr>
<tr>
<td>Early Twentieth-Century Views on Educational Placement of Hearing Impaired Children</td>
<td>28</td>
</tr>
<tr>
<td>Contemporary Views Relative to Educational Placement in the United States</td>
<td>30</td>
</tr>
<tr>
<td>Hearing Impaired Children in Integrated Programs</td>
<td>35</td>
</tr>
<tr>
<td>Other Contemporary Views</td>
<td>39</td>
</tr>
<tr>
<td>Summary</td>
<td>43</td>
</tr>
<tr>
<td><strong>IV. CONTEMPORARY STUDIES RELATIVE TO THE EDUCATIONAL PLACEMENT OF HEARING IMPAIRED CHILDREN</strong></td>
<td>45</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>V. SUMMARY AND CONCLUSION</td>
<td>52</td>
</tr>
<tr>
<td>Summary</td>
<td>52</td>
</tr>
<tr>
<td>Conclusion</td>
<td>54</td>
</tr>
<tr>
<td>Recommendations for Further Studies</td>
<td>54</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>56</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

During the last century, considerable attention has been given the acoustically handicapped children in the United States as well as Europe. From this surge of interest, many theories have been offered relative to the educational placement of these hearing impaired children.

Purpose

The purpose of this study is to provide further knowledge concerning the education of hard of hearing children through a survey of the literature relative to the educational placement of hard of hearing children. The decision as to which program is best suited for a given child—the public residential school for the deaf or the public school for hearing children—is still one which must be made on the basis of very limited experimental evidence. These children are in a unique situation. They may not hear well enough to adjust well or easily into a school for normally hearing. On the other hand, they may have some usable hearing which lifts them above the deaf child educationally.

Too often, school administrators do not recognize or distinguish the difference between the deaf and the hard of
hearing. Often the hard of hearing child is forced into association with the deaf and has to conform to the methods of learning and social behavior of the deaf. Eventually, he may conform to manual methods of communication. On the other hand, the hard of hearing child may often be forced into a school for normally hearing children and be expected to compete academically and socially with them. In some instances, hard of hearing children are not able to meet the challenge and suffer emotionally through constant failure and rejection.

Many teachers in the regular public schools look upon the hard of hearing child as a burden rather than as a challenge. They may not be familiar with problems of the hard of hearing child. The teacher may think a nod is an acknowledgment of understanding when, in reality, the child is only trying to please. In the classroom where the hard of hearing child is not expected to maintain the standards and goals of his classmates, he may learn to sidestep or bypass the task at hand by using his handicap as a "crutch". Too often, the teacher replies to the parent: "I don't have the time. I have thirty-two other children in the class. I have to treat each child alike." (41:59)

**Method**

The present study is divided into five chapters. The first chapter constitutes an introduction, purpose, and

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*Method of citing reference sources used throughout this paper. Example: (41:62) refers to source numerically listed in References; 62 refers to page number of that source.*
method of the study, and is followed by a list of terms with which the reader may not be familiar. The second chapter pertains to a chronological historical review of methods of instruction for the acoustically handicapped from the fourth century B.C. to the present. The third chapter includes early American views and contemporary theories relative to the educational placement of the acoustically handicapped in the United States, Russia, and Europe. Chapter IV discusses actual studies and experimental evidence related to the problem of educational placement. The last chapter contains a summary and conclusions from the theories and studies discussed.

Operational Definitions of Terms and Concepts

In the field of education of the acoustically handicapped child, the writer is compelled to define certain terms and concepts used in this thesis which may not be clearly understood by the reader. These definitions are those agreed upon by the majority of people in the field of the acoustically handicapped.

The Deaf and Hard of Hearing

In 1937 the Committee on Nomenclature of the Conference of Executives of American Schools for the Deaf offered for consideration the following classifications and definitions as a plan to differentiate the deaf from the hard of hearing:
1. The deaf: Those in whom the sense of hearing is nonfunctional for the ordinary purposes of life. This general group is made up of two distinct classes based entirely on the time of the loss of hearing. 
   a. The congenitally deaf: Those who were born deaf. 
   b. The adventitiously deaf: Those who were born with normal hearing but in whom the sense of hearing becomes nonfunctional later through illness or accident.

2. The hard of hearing: Those in whom the sense of hearing, although defective, is functional with or without a hearing aid. (8)

For the purpose of this study, the condition known as "hard of hearing" begins at 16 dB and extends to 70 dB in the speech range of 500, 1000, and 2000 cps (3), (14), (34), (29). In reviewing the early history of education of the deaf, one finds no differentiation being made between the deaf and the hard of hearing.

Educational Programs

In considering the educational placement of the hard of hearing child, four possible programs are usually available: the public residential school for the deaf, public day classes, public day schools, and individual integration. The public residential school for the deaf is a free boarding school for acoustically handicapped children, offering a special educational program (36:3). The method of instruction used in the residential school may be oral, manual, or combined. Public day classes are classes set aside for the acoustically handicapped within the framework of the public school for hearing children (24). These classes utilize the
oral method of instruction. Usually, there are no more than three such classes per academic year. Public day schools are made up of three or more classes within the framework of the public school for hearing children, usually separated from hearing children \((24)\). Children are usually taught orally in this program. The fourth program, individual integration, provides for the acoustically handicapped child to attend regular public school classes with hearing children. This program requires an itinerant speech or hearing therapist to give speech reading, speech therapy, language training, and parent and teacher counseling.

**Methods of Instruction**

The methods of classroom instruction the acoustically handicapped child may encounter in the above programs are the oral method, the non-oral method, the combined method, finger spelling, language of signs, and the simultaneous method. The oral method involves the classroom procedure of teaching the acoustically handicapped utilizing speech and speech reading as a communication process \((36:3)\). This method includes writing but excludes the use of sign language and finger spelling. A second method, the non-oral method, embraces finger spelling, sign language, and writing as a means of communication \((36:3)\). The combined method, often found in public residential schools for the deaf, utilizes finger spelling, speech, and speech reading combined as a
means of communication, with or without the use of amplification (36:3-4). Finger spelling involves using finger symbols representing each letter in order to spell out words as a means of communication (39). The impressions of ideas and words through the use of hand gestures constitutes the language of signs, which is another form of manual communication (24). The simultaneous method includes a classroom procedure using finger spelling, sign language, speech, and speech reading, with or without the use of amplification, as a means of communication.

Oral Communication Training

If a child is to communicate orally, he must be given instructions in speech reading, auditory training, and speech training. The teaching of speech to the acoustically handicapped involves systematic efforts in training the individual to recognize and produce acceptable speech. Davis and Silverman (8:373) point out that auditory training consists of the process of teaching the acoustically handicapped individual to take full advantage of his residual hearing. This training is usually accomplished through the use of amplification. Speech reading (lip reading) embraces the perception of oral language by attentively observing visual clues of the speaker.
Decibel

Hirsh (23) defines the term decibel (db) as a unit of intensity of sound which is used in describing the severity of a hearing loss. A certain number of decibels is stated using the standard sound pressure level reference of 0.0002 dyne/cm². This standard reference level of 0.0002 dyne/cm², Davis and Silverman (8:35) state "is conveniently close to the intensity of the faintest sound that can be heard by the best ear."

Summary

The most prevalent problem with the deaf and hard of hearing child is that of appropriate placement in an educational program. The problem is twofold: the hard of hearing child may suffer irreparable emotional damage by being placed either with hearing children in a regular public school or in a residential school for the deaf. School administrators too often fail to recognize the great difference in problems between the hard of hearing and the deaf. Teachers in the regular public schools also fail to recognize the problem of teaching the hard of hearing, usually considering them a burden rather than a challenge. In order to provide adequate placement there must be an objective re-examination of the relevant factors by the regular public school administrators and public residential school administrators in all aspects of the correct placement and teaching of the child who experiences hearing difficulties.
In addition to the problem of placement, one must be familiar with the various special terms referring to the problem of hearing. The two basic categories referring to the inability to hear are hard of hearing and total deafness. The hard of hearing and the deaf may be placed in the following educational programs: public residential schools for the deaf, public day classes, public day schools, and individual integration. The methods of instruction for the acoustically handicapped include the oral method, the non-oral method, the combined method, finger spelling, language of signs, and the simultaneous method. Oral communication training requires that the child be given instruction in speech reading, auditory training, and speech and language training. Finally, the term decibel, a unit of intensity of sound commonly used in describing the severity of a hearing loss, completes the terms used in this study.

Although the reader may be cognizant of the problems concerning placement and be proficient in the use of special terms in education of the acoustically handicapped, he cannot fully recognize the great advances made in working with the deaf and hard of hearing unless he knows something about the historical development of this field. The following chapter is devoted to a review of the methods of instruction used from 350 B.C. to the mid-twentieth century.
CHAPTER II

HISTORICAL REVIEW OF METHODS OF INSTRUCTION

In order to appreciate our modern schools for the deaf and hard of hearing, one must look at the history of education of the acoustically handicapped. It is a fascinating history as well as an astonishing one.

The development of our so-called "modern views and theories" has been marked by a slow recognition of the problems of the acoustically handicapped and by an increasing collective effort to solve them. This slow recognition may be viewed chronologically through a historical review of the methods of instruction from the period 350 B.C. to the present period. Although only fragmentary historical evidence of these efforts are extant prior to the sixteenth century, the chronicle of the early methods of teaching the acoustically handicapped becomes relatively clear through a historical review of the methods of instruction suggested by such figures as Aristotle, Justinian, and Bishop John of York.

Pre-sixteenth Century Treatment and Method of Instruction of the Deaf

Aristotle felt that the intellectual capacity of the deaf was impaired, as seen in his writing of 350 B.C.: "All deaf become speechless." (20:13) Davis writes that Aristotle
stressed the fact that sound (speech) was the primary vehicle for conveying thought, therefore, the chief medium for education. Presumably he believed that the deaf could neither give utterance to speech nor understand the speech of others; consequently, they were incapable of instruction (9:341-342). This idea that deafness and muteness were the result of an organic abnormality and that the deaf were poor educational prospects persisted through medieval times.

The Romans, like Aristotle and the Greeks, placed little value in the intellectual capacity of the deaf and "dumb." In fact, the deaf and "dumb" were classified with the mentally incompetent under Roman Law and were "excluded from the rights (entering into contract) and obligations (witnessing in a court of law) of citizenship under the Justinian Code, sixth century A.D." (9:342) Although the code did allow the deaf to marry, its influence later caused Medieval Law to deny the congenitally deaf and dumb the right of primogeniture (9:342).

No apparent progress was made in the treatment of the acoustically handicapped until the seventh century A.D. Bede (673-735) mentions that Bishop John of York was able to teach a deaf and "dumb" youth to speak intelligently. This performance was recorded as a miracle; however, the method of instruction was left unrecorded.
Sixteenth Century Education of the Deaf

No further attempt was made to educate the deaf until the middle of the sixteenth century. According to Davis and Silverman (8:407), Gurolamo Cardano of Padua, an Italian physician, proposed a set of principles that promised a more helpful educational outlook for the deaf. Cardano felt that the deaf could be taught to understand written symbols or combinations of symbols through the association of the objects or pictures of the objects which they were intended to represent.

Further progress in the teaching methods came from Pedro Ponce de Leon (1520-1584), a Spanish Monk of the Convent of Valladolid, who is considered the first regular teacher of the deaf. In a legal document in 1587, he wrote,

In this house of Ona, I have had for my pupils, who were deaf and dumb from birth, sons of great lords and of notable people, whom I have taught to speak, read, write and reckon: to pray, to assist at the Mass, to know the doctrines of Christianity and to know how to confess themselves by speech; some of them also to learn Latin, and some both Latin and Greek, and to understand the Italian language; and one was ordained and held office and emolument in the church and performed the service of the Canonic Hours. (20:14)

Seventeenth Century Methods of Instruction

Juan Pablo Bonet, also a Spaniard, published the first book, Reduccion de las Letras, y arte para Ensenar a ablar los Mudos (Simplification of the Letters of the Alphabet and
Method of Teaching Deaf-Mutes to Speak), which dealt exclusively with the teaching of deaf-mutes. The book was published in Madrid in 1620 (20:18). Bonet's students were taught articulation and language supplemented by a manual alphabet and language of signs (9:344). He was concerned with positions and movements of the organs of speech. We may classify his method of instruction as a combined method, including speech, manual alphabet, and the language of signs (36:6).

John Bulwer, an English physician, holds the distinction of writing the first book in English on lip reading which is entitled, Philocophus: or The Deaf and Dumb Man's Friend, Exhibiting the philosophical verity of that subtile art, which may enable one (born deaf and dumb) with an observant eye, to hear what any man speaks by moving his lips, and thence learn to speak with his tongue (36:6). The publication of this treatise dates back to 1648. Bulwer is also known for the first publications in English on the problems of the deaf. His Chirologia: or, The Natural Language of the Hand, and Chironomia: or, the Art of Manual Rhetoric are devoted to an analysis of the language of manual expression and its expression and application to speech and oratory (20:18).

Another Englishman, William Holder (1616-1698), an Oxfordshire clergyman, taught speech to the congenitally deaf son of Admiral Popham. He presented his method of instruction,
an analysis of sounds of speech according to their organic production, in *Elements of Speech*, published in London in 1669 (15).

Dr. John Wallis (1616-1703), an eminent clergyman and scientist, made additional contributions by making a more thorough analysis of the vowels and consonants in teaching the deaf to speak. Wallis stated in a series of letters to Robert Boyle, a distinguished chemist, "The education of the deaf is founded on two principles: to teach articulation and to understand a language." (20:24)

Further evidence of the continuing progress made in the teaching of the acoustically handicapped is recorded in the works of John Conrad Amman, a Swiss physician who migrated to Holland. He is considered the first advocate of the purely oral method of teaching the deaf. *Surdus Loquens* (The Speaking Deaf), written by Amman in 1692, was later improved and reissued as *Dissertatio de Loquela*. This work laid the foundation for the purely oral method of teaching and influenced subsequent teachers in Germany and elsewhere to adopt this method of instruction (20:30).

**Eighteenth Century Methods of Instruction**

Additional contributions to the teaching of the oral technique came from Samuel Heinicke (1729-1790). Heinicke, known as the "father of the German oral method," founded the
first officially recognized public school for the deaf (36:6-7). The significance of this official recognition is that the need of the acoustically handicapped individuals had finally been recognized. The state of this group was slowly improving. Diametrically opposed to Heinicke was Abbe de l'Epee of France (1712-1789) who is known as the founder of a system of methodical signs. He is also credited with founding the first public school for the deaf in Paris in 1775 (8:408). The influence of these two men was so widespread that the pattern of their controversy was reproduced later in many countries including the United States.

Thomas Braidwood (1715-1806), a Scottish instructor of mutes, used a method which was believed to have been predominately oral. He opened a school for the deaf in Edinburgh, Scotland in 1760 and one in London in 1783 using his secret method. Goldstein (20) asserts that Braidwood's method consisted of articulation, writing, reading, and knowledge of language. In contrast to this, Arnold affirms that Braidwood used the manual alphabet and natural signs as well as articulation, writing, reading, and language (36:7).

Nineteenth Century Methods of Instruction in the United States

The secrecy and monopoly of instruction in Great Britain accounts for the introduction of sign language and finger spelling in the United States. In 1807 Alice Cogswell,
daughter of an eminent physician, Dr. Mason F. Cogswell, became deaf as a result of scarlet fever. Dr. Cogswell, who wished to educate his daughter in the United States, requested the aid of many influential friends. He and his group of friends formulated a plan by which to attack the problem of educating his daughter. First, a qualified individual was to be sent to Europe to acquire the skills necessary for teaching the deaf. After this person had acquired the necessary skills, he was to return to the United States and become the head of a special school to be established for teaching the deaf.

Reverend Thomas Gallaudet was the person chosen for the position. Gallaudet set sail for Europe on March 25, 1815. In Great Britain, Gallaudet was unsuccessful in his quest. He first made application for instruction to Joseph Watson, headmaster of the London Asylum for the Deaf and Dumb. Watson, who was the nephew and successor of Thomas Braidwood, refused Gallaudet any instruction or information pertaining to the education of the deaf. In a second attempt at obtaining instruction, Gallaudet visited Robert Kinneburgh, who was in charge of the institution in Edinburgh which was also founded by Thomas Braidwood. There again Gallaudet found himself not welcome when he applied for instruction and training (36:8).

Since Gallaudet was unable to obtain instruction in Great Britain, he proceeded to Paris where he was cordially
welcomed by Abbe Sicard, the successor of Abbe de l'Epee. In Paris, at the Royal Institute for the Deaf and Dumb, Gallaudet studied the methods of de l'Epee and Sicard. He returned to this country in 1816 with a teacher of the deaf, Laurent Clerc, who was himself deaf. Both were prepared to teach the deaf through the use of signs and finger spelling (20:32).

Although the manual method of teaching the deaf was introduced into the United States in 1816, the oral method had been introduced earlier in 1812 by John Braidwood, a grandson of the celebrated Thomas Braidwood of Great Britain (1:459). Braidwood contemplated founding a school in the United States similar to that of his grandfather's in Great Britain.

Braidwood's first attempt began in America as early as October, 1812, teaching the deaf children of Colonel William Bolling at Bolling Hall, Goochland County, Virginia. He succeeded in carrying on the Bolling Hall School for a period of two and one-half years. Colonel Bolling decided to turn over his family mansion at Cobbs, Virginia, to be used as a public school for the deaf (1:461-463). The Braidwood Institution, opened in Cobbs, Virginia, on March 1, 1815, was open to the public on a tutorial basis. Unfortunately, the school was abandoned in the summer of 1816 as a result of Braidwood's intemperate habits (1:463).
Braidwood made a second attempt to establish a school for the deaf in New York in the late autumn or winter of 1816. However, this school also failed as a direct consequence of his continued misconduct (2:388-389).

The final attempt by Braidwood to establish a school for the acoustically handicapped came in 1817 after he returned to Virginia penniless and scarcely decently clad. Colonel Bolling, Braidwood's original benefactor, made arrangements for the Braidwood Institution to be reopened in Manchester in connection with the classical school of the Reverend John Kirkpatrick (1:462). Braidwood and Reverend Kirkpatrick started their work in June 1817 in the Masonic Building in Manchester. The school attracted a great deal of attention, but Braidwood's numerous "irregularities" caused Reverend Kirkpatrick to sever all connections with him. Braidwood later became a barkeeper in a tavern in Manchester, and there died a victim of the bottle in the autumn of 1820 (1:463).

According to Dr. Alexander Graham Bell, "young Braidwood was a man of education, culture, of congenial disposition, and competent as a teacher of the deaf; but intemperate habits ruined his life, and brought a stop to all the enterprises in which he became engaged." (1:463) Thus came to an end the first attempt in the United States at teaching the deaf utilizing the oral method. Had Gallaudet not been
turned away from the Braidwoods in Great Britain, and had young Braidwood not been the "blacksheep" of the family, one may surmise that American instruction would have been predominantly oral from the beginning.

Upon Gallaudet's return to America, the first permanent school for the deaf was founded in Hartford, Connecticut. This school was named the American Asylum for the Education and Instruction of the Deaf and Dumb. The school opened on April 15, 1817. Originally the school was a private institution, but in 1819 the United States Congress granted it permanent finance, thus making it a public institution (20:36).

The city of New York likewise displayed a great interest in the education of the deaf as early as 1817, at which time a charter was secured from the legislature. The school opened the following year; however, it was not until 1819 that the State legislature made an appropriation for the school, "on condition that an equal amount was secured from other sources . . . and soon after allowing a certain amount for each pupil." (2:392-394)

As the need arose and as the nation grew, each state established residential schools for the deaf. In addition, school administrators recognized a need for better methods of instruction in the schools which were well established.
In 1843, Dr. Horace Mann, Massachusetts Secretary of the Board of Education; Dr. Samuel G. Howe, instructor of the blind deaf pupils; Laura Bridgman, and Oliver Caswell made a tour of Europe to study methods of instruction used in the schools for the deaf. Upon their return, Dr. Mann made a report in which he advocated the superiority of the oral method as used in Germany. He urged that the schools for the deaf in the United States adopt the German oral system (20:36).

Following Dr. Mann's report, the American School and the New York School sent representatives to study the methods of instruction used in Europe. Professor G. E. Day from the New York Institution and Lewis Weld from the American Asylum made the tour in 1844 (36:10).

After making a thorough study and evaluating the methods used in Europe, Day and Weld did not agree with Dr. Mann. They felt that the American techniques as a whole were superior to the European methods, but "strongly recommended the justice and expediency of giving instruction in speech to the very limited number of deaf who were capable of it." (36:10)

Speech was taught in a number of the early schools from the beginning. These early efforts were focused upon those who had residual hearing and upon those who had speech prior to deafness. However, it was not until 1857 that the
that the first regular speech teacher was assigned to a school. Miss Eliza Wadsworth, who was assigned to the American School at Hartford, holds this distinction (36:11).

The first permanent oral schools were established during 1867, one located in New York and another in Massachusetts, just fifty years after the founding of the first permanent schools which were predominantly manual. On March 1, 1867, the Institution for the Improved Instruction of Deaf Mutes, now the Lexington School for the Deaf, New York City, was opened. The Clark Institution in Northampton, Massachusetts, opened October 1, 1867, under the direction of Miss Harriet B. Rogers. Mr. John Clark of Northampton contributed an endowment for the establishment of this oral school. Schunhoff (36:14) points out that the year 1868 is considered the most important year in the history of speech instruction for the acoustically handicapped in the United States as a result of the founding of these two oral schools.

The period from the establishment of the two oral schools in 1867 to 1900 is noted for its rapid growth in speech instruction and intense arguments on methods of instruction. Additional momentum was given to the oral method when Dr. E. M. Gallaudet gave the keynote address in March 1868 at the first Conference of Principals of Residential Schools, now called the Conference of Executives of American Schools.
for the Deaf. This address was given after Gallaudet had made a tour of Europe studying methods of instruction (36:18-20).

Another surge of interest in speech instruction came when Mr. A. Melvill Bell, father of Alexander Graham Bell, invented "Bell's Visible Speech" in 1867 (2:545-546). This constitutes a series of phonetic symbols showing the positions of the speech organs which are functioning in the utterance of sounds and words. After the success of Bell's Visible Speech in England, Dr. Alexander G. Bell experimented with its use in the schools for the deaf in the United States.

Bell first introduced the method at the Boston School for Deaf Mutes (Horace Mann School for the Deaf) in April 1871, and later at the Clark Institute at Northampton during the school year 1871-1872. The success of the system is reflected in a statement from Miss Sarah Fuller, principal of the Boston School for Deaf Mutes, who stated in 1893, "The wide spread interest felt in this country in articulation teaching, and the success of the work are (was) undoubtedly due to the system of Visible Speech." (17)

Another step in the advancement of the oral method came in 1880. At that time, Dr. J. A. Gillespie, Superintendent of the Nebraska School, contributed to the teaching of speech through the aural method. In defining the aural method, Goldstein writes:

The hearing of the semi-deaf pupils is utilized and developed to the greatest possible extent and, with or without the aid
of artificial appliances, their education is carried on efficiently through the use of speech and hearing, together with writing. The aim of the method is to graduate these pupils as hard-of-hearing, speaking pupils instead of deaf mutes. (20:206)

Gillespie organized an aural class in 1880 of students with some residual hearing, using the audiophone, a fan-shaped instrument which made use of the principle of bone conduction via the upper teeth (36:31).

In an attempt to exclude all use of sign language in or about the school, the Rochester School of Rochester, New York, in 1878 developed a method known as the "Rochester Method" or the combined method, hereafter called the combined method. The goal of this method was to "acquire the English language as their mother tongue through the visible forms in which English can be presented--the manual alphabet, speech and speech reading, writing and printing--choosing the form convenient for the occasion." (43)

The last decade of the nineteenth century was marked by heated discussions with reference to the oral versus the combined system, but advocates of both the oral and combined methods recognized the level of success reached in oral instruction as well as through the combined method. Although each group recognized the values of oralism and the combined method, the controversy was not settled by any means. The advocates of the oral method believed that the use of finger spelling would impede the development of speech because the
child would have a tendency to use the easier form of communication. On the other hand, advocates of the combined method believed the additional sensory perception aided in the acquisition of language and speech.

The oral method of instruction gained acceptance in residential schools for the deaf very slowly from 1900 to 1920 and reached a plateau from 1920 to 1930 (36:50). However, the number of day schools increased greatly during this period. Thus, as the number of day schools increased from forty in 1900 to a total of 114 in 1930, this movement tended to increase the acceptance of oral instruction in residential schools.

**Growth and Expansion of Oral Instruction from 1930 to the Present**

Electronic amplification has probably made the greatest single contribution, both quantitatively and qualitatively, to the teaching of speech to the hearing impaired since 1930. Dr. Clarence O'Connor, Superintendent of the Lexington School for the Deaf, is noted for advocating the use of amplification in schools for the deaf (42). During World War II considerable progress was made in the development of audiometric equipment and testing procedures.

The teaching of speech to the acoustically handicapped has expanded since the close of World War II. Presumably
the state of the war-deafened personnel is responsible for the new interest in the matter. There was also an improvement in hearing aids for the acoustically handicapped which spurred further interest. P. V. Doctor (10) states, "These two factors--the great improvement in the use of hearing aids and the rehabilitation program for deafened military personnel--created greater interest in the hard of hearing as well as the deaf." At the same time there was a greater interest among parents in finding out how they could help their hearing impaired children. This interest on the part of the parents was greatly responsible for the development of preschool groups and clinics for the acoustically handicapped.

Concurrently, there was a tremendous growth in speech and hearing clinics in colleges, universities, medical schools, and hospitals. The case load of deaf and hard of hearing children in speech and hearing clinics in the United States, according to the American Annals of the Deaf for the year 1960, was 63,108 (38). Of this number, 16,930 children were served by university and college speech and hearing clinics, 23,373 by hospital speech and hearing clinics, 14,989 by speech and hearing clinics in schools for the deaf, 7,521 by private speech and hearing clinics, and 295 by speech and hearing clinics in medical schools.

According to the American Annals of the Deaf for January 1962, 28,529 pupils were enrolled in residential
schools, day schools, day classes, private and denominational schools and classes, and multiple-handicapped schools and classes for the acoustically handicapped in the United States for the academic year 1961-1962 (38). Of this 28,529, 16,122 were in residential schools for the deaf, 1,841 in day schools for the deaf, 8,018 in day classes for the deaf, 2,343 in private and denominational classes and schools for the deaf, and 205 in schools and classes for the multiple-handicapped. Including the 63,108 pupils served by speech and hearing clinics, a grand total of 91,637 deaf and hard of hearing children were being educated in the United States in these institutions during the year 1960-1961. No computations have been made to determine the number of hearing impaired children attending public schools in integrated programs.

Summary

Attitudes toward the deaf and hard of hearing have progressed from the fourth century B.C., when they were considered intellectually incompetent, to the present era of so-called modern philosophies related to the teaching of the acoustically handicapped. After early educators discovered that the deaf and "dumb" person was not mentally incompetent, these educators devised methods of teaching the acoustically handicapped individual to communicate. Speech and manual methods of communication were included in a number of the
early methods of teaching. However, two clearly defined concepts of teaching the acoustically handicapped had developed by the seventeenth century. Great Britain and Germany relied predominantly on the oral method, while France advocated the manual method. Spain used the oral method supplemented by the manual alphabet and language of signs. In the United States, speech was taught in a number of the early schools from the beginning; however, it was not until 1857 that the first regular speech teacher was assigned to a school. By the nineteenth century, the dispute between the manual method and the oral method had intensified. This conflict gave rise to the combined method, an early effort to compromise the two diametrically opposed systems of teaching. To this day the controversy remains unsettled.

As the different methods of instruction came into existence, likewise different theories relative to the educational placement of the acoustically handicapped originated simultaneously. The two conflicts—the controversy of methods of instruction and the controversy of educational placement—are inseparable. The following chapter is devoted to the various theories pertaining to the educational placement of the hearing impaired.
CHAPTER III

THEORIES RELATIVE TO THE EDUCATIONAL PLACEMENT
OF HEARING IMPAIRED CHILDREN

All who are involved with the education of the deaf and hard of hearing children are aware of the great importance of spoken and written language, but often these individuals do not put forth sufficient effort to do anything about the problem. Teaching the child to understand and to be understood, to receive language impressions from others and to express himself, should be the main concern of the schools if the child is to make maximum educational progress.

Speech and language taught to the acoustically handicapped must be used and practiced again and again in as many ways as possible, making use of the child's daily experiences, daily events, contacts, and his natural desires. This is the only way in which the child will learn speech and understand the speech of others. Dr. Alexander G. Bell (36:32) once said, "If you teach a language, you must teach it by itself. If you translate from one form to another, that which is most familiar to you will be the one you will use by habit." He felt that too little attention in oral schools is paid to communication by written English and ordinary writing, and in the combined schools too little attention is paid to articulation.
Early Twentieth-Century Views on Educational Placement of Hearing Impaired Children

In the early twentieth century, there were many divergent opinions in teaching the acoustically handicapped. While A. L. E. Crouter felt that the combined system schools should provide a separate building for orally taught pupils, other teachers and educators of the deaf, such as Westervelt, were diametrically opposed to this idea. Still other theories relative to the educational placement were expressed by George Venditz and John Dutton Wright and will be elaborated upon in this discussion.

An early twentieth century teacher of the deaf, A. L. E. Crouter (7), asserted in 1906 that the combined system schools should provide a separate department in a separate building for orally taught pupils, "thus giving them the great advantages of separate supervision, separate classification, separate instruction, and a real opportunity to acquire practical speech and lip reading." (7:323)

Westervelt asserted a theory which was in marked contrast to that of Crouter. In referring to the combined method used in their kindergartens, Westervelt (44), Superintendent of the Rochester school, declared:

The kindergarten child is not expected to talk very much the first year or two. He is expected to use his hands entirely for intercourse, but after he has learned to speak he is expected to
use everywhere the language that he learns in the classroom, wherever he has any hearing person to speak to, and his speech gradually grows.

An additional theory was introduced by George W. Venditz (16) in 1910, a former teacher of the deaf and President of the National Association of the Deaf. He recommended that deaf children be started in manual classes "to galvanize the childish mind into full activity by every stimulant possible, and notably by using the sign language with unfettered hand." He advocated moving the acoustically handicapped child to oral classes in two or three years, at which time he predicted a more ready response to speech and speech reading.

On the other hand, John Dutton Wright (45), Principal of the Wright Oral School, a private institution in New York (1916), favored a complete separation of oral pupils from manual pupils. He calculated that oral pupils in a combined system were received a maximum of fifteen hours per week of oral atmosphere and 97 hours of manual atmosphere. Maintaining that 75% of the pupils in schools for the deaf are not surrounded by a speech atmosphere, he alleged that the "teaching of speech in a combined system is comparable with trying to teach a boy to swim in ankle deep water." (46)

According to Wright, the failure of oralism in a combined system school is not because of deficiencies in oralism nor because of deficiencies in silent methods of communication, but because the two systems are "repugnant to each
other in a 'commingled' state." He writes, "They are two plants that require different soils, and if planted side by side in the same pot, neither flourishes." (46:210)

The conflict that existed in theories relative to the instruction of the acoustically handicapped in the early twentieth century has by no means abated in the mid-twentieth century. The conflicting theories of methods of instruction are reflected in theories relative to educational placement. In reality, they cannot be separated. Those who advocate placing the acoustically handicapped child in public residential schools favor the combined system method of education which utilizes speech, speech reading, and finger spelling. Those who advocate placement in day schools, day classes, and individually integrated programs support the oral method of instruction which relies primarily on speech and speech reading.

Contemporary Views Relative to Educational Placement in the United States

Hudgins et al. (25), in a committee report in 1943 to the American Association to Promote the Teaching of Speech to the Deaf, listed the following causes for poor speech: (1) lack of a unified speech program in most of our schools; (2) poorly trained teachers; (3) poor speech teaching methods; and (4) a failure on the part of pupils to use speech outside of the classroom.
In an effort to compromise the conflicting methods of instruction, Freeman E. McConnell, in the Journal of the International Council for Exceptional Children (29), maintains that it is not necessary to be absolutely on one side or the other in the day school-residential school controversy. Both programs are necessary, and both programs must be extended and made better if every hearing impaired child is to receive a good education. McConnell contends that a child with a hearing loss of 66 db to 100 db should be placed in a residential school in most cases, unless the child's speech and language are established.

Further efforts to compromise came from Richard G. Brill. In a paper presented in November 1957 at the ICEC Southwestern Regional Conference in Phoenix, Arizona, Brill (4), Superintendent of the California School for the Deaf in Riverside, reported:

The speech of the hard of hearing child is more likely to suffer through his association with the deaf child who has typically deaf speech than if the hard of hearing child had the opportunity to associate primarily with children who have normal hearing and thus have normal speech. (4)

Brill believes that the hard of hearing child should be educated in a school for hearing children with a special supplementary program.

Likewise, Brown (5) maintains that hard of hearing children should always have acquaintance with normal hearing children. She asserts that if the hard of hearing child
associates exclusively with deaf people, his speech will deteriorate. She believes that the needs of hard of hearing children are not completely satisfied in a school for the deaf, but at present the school for the deaf is the best suited for them.

A concept similar to Brown's has been set forth by Jacqueline Keasler (28), who proposes that the education of a deaf child depends in large part on the individual problem, such as degree of hearing loss, the age when loss occurred, and the home from which the child comes. She maintains that the advantage of an integrated school is that, from the beginning, the child learns to live in a hearing world.

Additional evidence of the conflict and effort to either devise new methods or compromise with existing ones comes from Irving Fusfeld (19). Fusfeld comments on the tremendous advances being made in the public school curriculum and the need for research to determine whether the residential schools for the deaf are making a similar progress. He asks the following question: "Are our school administrators in the residential schools following a sound course by enrolling hard of hearing children and then placing them in the same classes with deaf children?" He contends this unwise association of hard of hearing children with totally deaf children is a matter of vital importance. The decision should not be made too hastily.
Medart (30) points out the need for a hearing environment, but believes the acoustically handicapped child should be educated in the residential school, since the parents are often living at a fast pace in the business and social worlds and do not recognize the problems of the child. As the child grows older and attends advanced classes in schools for the deaf or lives among the deaf, Medart feels that their power of speech as well as their confidence will eventually taper off. If the child attends a school with hearing children, he will be forced to use speech in order to get along with his classmates (30).

Mrs. Eunice Heinricks (22) asserts a contrary viewpoint. She believes in day school placement because the hearing impaired child lives at home in a hearing environment, secure in the affection of his parents and siblings, and plays with neighborhood children.

Daniel T. Cloud (6) states that no one person has the answer as to where the acoustically handicapped child should be educated. The problem is one of finding the best educational facility to meet the particular needs of the child. He points out that it would be well for professional persons who know the child, his family, his community and the available resources to plan jointly for the child, to assist the child's parents in making the best educational plans for him. Those who do the planning should utilize the skill and
knowledge of the educator, social worker, psychologist, public health nurse, physician, and the audiologist. Only through joint planning will the best use of all available aids and services be made.

Adam Sortini, in the *Journal of Speech and Hearing Disorders* for November 1959, holds a similar opinion (37). He asserts that the availability of specialized instruction is obviously a major consideration in attempting to make a decision regarding the educational placement of hearing handicapped children. Even if the child does have a favorable environment and is of average or above average intelligence, the decision for school placement should not depend on the decibel loss alone. He believes that the needs of the individual child should be considered before a final decision is made by the team which has worked with and will continue to work with the child.

The writings of Boris Morkovin (32) show further concern with this concerted planning program. He alleges that a child of average or above average ability with a severe hearing impairment can usually be integrated successfully with his oral environment if given opportunities to study and play with hearing children. He maintains that the individual's own effort is one of the most important factors in the process of integration. Other important factors are
the individual's ability to live up to the standards of effective oral communication and growth in self-reliance (32).

**Hearing Impaired Children in Integrated Programs**

Morkovin (32:97-98), who is a prominent educator of the acoustically handicapped in California, reports on an integration program of hearing impaired children with hearing children in California. The study was made possible when the State Department of Public Health and Education, in 1943, provided an appropriation for the expansion of a program of hearing conservation and of education for hearing impaired children (32:97-98). In 1948, Compton, California public school authorities established special day classes for deaf and hard of hearing children. Morkovin writes that the basic philosophy underlying this decision to integrate hearing impaired children in the public schools is as follows:

1. Modern developments in acoustics, electronics and educational methods point to the possibility of integrating educationally an increasing number of hearing handicapped children; 2. The hearing handicapped children might have much to gain in the way of emotional enrichment, desirable behavior patterns, and motivation for verbal communication by close and continuous association with hearing children; 3. In an integrated school situation it is impossible to use special equipment, personnel, and methodology needed for effective specialized work with hearing impaired children; 4. Since deaf and hard of hearing children live in the world of persons who hear and speak, it would be advantageous if their adjustment to such an environment
commenced as early as possible during their impressionable learning years; (5) Non-handicapped children can also profit from association with those not so fortunate. This "integrated" arrangement is mutually beneficial to both groups. (32:98)

In reporting on the process of integration as seen by a special teacher of hearing impaired children, Rose Pissavok (32:98-99), of Alhambra Public Schools, Alhambra, California, points out that each child's readiness for integration is judged on an individual basis with the consideration of psychological, language, and academic factors. Pissakov reports that hearing children are given an opportunity to visit the special classes and participate. The special teacher explains to the hearing children the techniques of speech reading and the use of hearing aids. These hearing children are also given an opportunity to listen through hearing aids. This process is carried out in order to develop a mutual understanding between the hearing impaired and the hearing.

Nancy Blue (32:99-100), a teacher of regular classes at Granado School in Alhambra, California, reports on the process of integration as seen by a regular public school teacher. She writes that hearing impaired children who are integrated in a hearing class are made at once to feel that they are a part of the group. They participate readily in such subjects as social studies, arithmetic, spelling, and
writing. She finds the hearing impaired children to have more difficulty in reading because of their limited vocabulary.

Blue comments on the amount of aid given the hearing impaired child by the hearing children in the integration program. She reports that when the teacher is unable to get ideas across, the hearing children often convey the thought or message for the teacher.

Blue concludes that integration is important because both groups learn to communicate with each other under normal conditions of the classroom. "Thus," she writes, "the hearing impaired child is enabled to lead a richer and fuller life and his personality parallels that of a child with no physical handicap." (32:100)

A second program making use of integration operates in Compton, California. Myra Taylor (32), Supervisor of Aural Education and Speech, Compton City School District, and Carleda Moore, Coordinator of Aural Education, Compton Union Secondary School District, state that each integration school for hearing impaired children has in its basic curriculum guide some statement that one of the objectives of the school or department is to prepare children for life. Taylor and Moore write:

The "preparation for life" of a hearing impaired child means the development of his potential abilities so that he can apply them successfully in coping with situations he encounters in the hearing
world. This preparation must be started early in the child's life. He has to develop the habit of feeling he is a part of the hearing group, of learning the rules of the game, and of acquiring a strong motivation to make himself understood by others, as well as a desire to understand them. Only in an atmosphere of daily contact with hearing children in school can he develop attitudes and habits of oral communication. (32:102)

A third program in which hearing impaired children are integrated with hearing children in regular public schools functions in the state of Washington. Elvena Miller (31), Supervisor of Speech in the Seattle, Washington Public Schools, contends that "the borderline hearing case in the public school creates a special situation, not as a clinical problem, not as a problem for a segregated class, but as a handicapped child in the regular classroom." She writes that the hearing impaired child, with additional help, leads a normal life and makes average progress in school, and eventually takes his place in the hearing world as a self-sufficient individual. She believes that the public school is responsible for providing a complete hearing conservation program.

Miller concludes that "the placement of these children depends upon the emotional attitude of the child and the parents, the early education, intelligence, the ability of the child to use speech and language and that 'vague' something called the 'individual factor.'" (31:259) In any
event, the degree of loss shown on the audiogram is not the determining factor.

Divergent opinions relative to the educational placement of the acoustically handicapped child have existed from early twentieth century to present. Although various attempts have been made toward a compromise, the controversy still remains unsettled. The administrators of the public residential schools for the deaf, the public day schools, day classes, and the regular public schools have not agreed upon a certain procedure to follow in an attempt to provide the best educational placement for the hearing impaired child. In certain localities, a team approach is carried out, but as a general rule this procedure is not found throughout this country. Other countries, such as Russia, Denmark, Norway, and Germany, also indicate differences of opinions in relation to the educational placement problem.

Other Contemporary Views

The Soviet viewpoint is that the hearing deficiencies of a child can be compensated more easily through other sensory avenues and his resources developed most effectively if he is given early training in the most favorable environment. Soviet educators state that the potentialities of a hearing impaired child cannot be realized until he is involved as a social unit in the communicative process and until he
participates in the collective experiences of family, school, play, and community groups (33).

Severely hard of hearing children, with a loss of 70 db or more in the speech range, and deaf children are taught in separate schools in the Soviet Union. According to Boskis (3), if the severely hard of hearing child enters the first grade without speech, he is still able to imitate speech with the help of hearing aids. This child, with the aid of auditory training and sensory training, acquires an oral foundation on which to build language. Boskis points out that this foundation is reinforced by an awareness of word sound which is developed through "special corrective work, reading, writing, as well as by an accumulated vocabulary." (3) Boskis also believes that an incentive which motivates the acoustically handicapped child to improve his language is the direct person-to-person relationship.

The Danes also have recognized the need for a normal environment in teaching the acoustically handicapped. S. Dohn (11) of Denmark prefers to use the term "hearing reduction" instead of "deafness." He asserts that one cannot categorize "deafness" with audiometric or acoustical methods of research. He believes the audiologist must work in conjunction with psychologists if the child is to receive correct educational placement. Dohn holds that "children with
hearing reduction are confronted with inner and outer surroundings which the teacher must influence in a normal direction." [11] Norwegian educators also express concern about the correct educational placement of hearing impaired children. In reporting on the acceptance of pupils in Norwegian schools for the deaf, J. Sabo [35] contends that before a child is placed in a school either for the deaf or the partially deaf, or in special classes, he should be placed in a class where he can be observed and tested. The decision relative to educational placement should be made only after an analysis has been made of the reports from specialists in the psychological and medical fields.

Germany, unlike the United States and some European countries, has two specific schools or categories in which to place the acoustically handicapped child. Uden [40] of Germany writes that a school for the hard of hearing is a hearing school and that a school for the deaf is a seeing school. He asserts that the deaf travel at a slower pace than the hard of hearing. He also believes that psychological difficulties of hard of hearing children are greater than those of the deaf because of their "anxiety complexes, their ambiguous duality between the hearing world and the deaf world." Uden also proposes that in deciding whether to place a hearing impaired child in a school for the deaf or
in a school for hard of hearing, the audiogram is not the determining factor. He asserts that attempts are occasionally made in Germany to place a child with a loss of 90 db or less in a school for the hard of hearing, with intelligence being the determining factor. Aphasic children with losses above 60 db require so much visual aid that they profit more from a school for the deaf than from a school for the hard of hearing. Uden proposes that "not only should the hard of hearing be separated from the deaf in and out of class but also from the normal hearing." (40)

In contrast to the German philosophy, British educators of the acoustically handicapped endeavor to place hearing impaired children in regular schools. Ewing and Ewing (14) maintain that records in the United Kingdom, Australia, New South Wales, and Victoria indicate that children with hearing losses whose thresholds do not exceed 75 db in the speech range have entered regular schools with hearing children by the age of six years. They report that the parents of these children have given them good speech training at home as a result of the guidance offered at various speech and hearing clinics. In making the decision as to what kind of educational treatment will best meet the individual's needs, the Ewings assert that one should consider the child's age at the onset of deafness, the degree of his residual capacity to hear, and his intelligence.
Summary

Considerable disagreement existed among prominent educators of the acoustically handicapped during the early twentieth century. Alexander G. Bell and A. Crouter propounded that combined system schools should provide separate plants for orally taught pupils. In contrast to this philosophy, Westervelt favored the combined method. A view similar to that of Westervelt was put forth by Venditz, who suggested placing the hearing impaired child in a manual class from the beginning and then later placing the child in an oral class.

The conflicting theories that existed during the early twentieth century were by no means settled during that period. However, during mid-twentieth century, efforts were made in attempting to compromise the conflicting theories. Further efforts to improve the method of educational placement of the acoustically handicapped come from Cloud, Sortini, Brill, and Morkovin. They state that each child should be considered individually utilizing the team approach.

No clear-cut procedure has been established in reference to this placement problem in Europe or in the United States. However, integrated programs are functioning throughout the United States in an attempt to provide a good educational program for the acoustically handicapped.
In brief, before placing an acoustically handicapped child in an integrated program or a residential school for the deaf, prominent educators of the deaf (6) (37) (32) (41) (31) theorize that administrators should consider the following factors: intelligence, onset of deafness, amount of loss, resources available, psychological factors, and speech and language. In spite of the numerous theories proposed concerning educational placement, only a few studies have been devoted to this problem. These studies are reviewed in the following chapter.
CHAPTER IV

CONTEMPORARY STUDIES RELATIVE TO THE EDUCATIONAL PLACEMENT OF HEARING IMPAIRED CHILDREN

A survey of the literature reveals many different theories regarding the educational placement of the acoustically handicapped. However, only a few actual studies have been made regarding this problem. This chapter is devoted to a review of the studies which offer the greatest contribution, made by O'Connor, Van Wyk, Justman et al., and Frisina and Quigley. Basically, these studies include the following areas: factors influencing success or failure in integrated programs, emotional adjustment, educational achievement, and communication ability.

The first study relative to the educational problem is one made by Clarence D. O'Connor (34), Superintendent of the Lexington School for the Deaf. O'Connor studied eighteen pupils who had transferred from the Lexington School for the Deaf between 1945 and 1957 to public or private classes for hearing children. The primary objective of the study was to determine the factors influencing success or failure in integrated programs.

From this study of eighteen acoustically handicapped children, O'Connor concludes the following: (1) Those who
have a loss of 60-70 db or more in the speech range cannot, at the age of five or six years, successfully or comfortably be integrated educationally with hearing children. He contends that the hearing impaired child needs specialized programs for a number of years, at least, in order to acquire facility in the use of language; (2) The percentage of potential candidates in schools for the deaf who can be integrated into hearing classes is small; (3) No pupil should be transferred to regular classes until he has developed communication ability. This means the child cannot usually be ready until eight or nine years of age unless he has had special training and has developed speech and language; (4) The child needs an intelligence quotient of 110 or more; (5) The "tougher" the child's emotional fiber the more successfully he may be integrated. The child who is shy and lacks confidence may suffer severe "ego-reduction" in an integrated situation to the extent that he may find himself more segregated in the so-called "normal program"; (6) The feeling and attitudes of the parents are of utmost importance. The question here is: How well are the parents oriented to the problems of the child and how much help and guidance can they be relied upon to give their child at home? (7) The degree to which the staff is oriented to the child's needs and the capacity of the teacher to make adjustments should be given consideration.
O'Connor concluded that each of the above factors should be given great consideration before placing a child in the public school to compete academically with hearing children.

Van Wyk (41) made a comparison of the results of her 1959 survey with one made in 1939 by Josephine Timberlake. Timberlake's conclusions and Van Wyk's findings follow:

(1) Success in an integrated situation is not necessarily due to the amount of residual hearing. Children who displayed the greatest hearing loss in Van Wyk's study were the ones most successfully integrated; (2) Academic success is not apparently related to the type of special school attended, whether day school or residential school. Van Wyk and Timberlake concluded that success of an integration program depends upon factors other than amount of residual hearing and type of school attended prior to integration.

Van Wyk further concluded that integration of hearing impaired children with hearing children can be accomplished successfully if the child has good speech reading ability and good oral language, if he is socially well adjusted, if he has intelligence within the average range or above, and if the program provides teacher guidance.

Justman, Moskowitz, Nass, and Alpert (27) made an investigation to evaluate the nature of adjustment to school, to society, and to self of acoustically handicapped children in an integrated situation. This study was concerned with
ten fourth-grade, acoustically handicapped children (deaf and hard of hearing) integrated in a group with 25 hearing children.

The factors measured in the study were academic achievement, social adjustment, and acceptance of the integrated program by the parents, teachers, and pupils involved in the experimental situation. Justman et al. concluded:
(1) The average gain in academic areas of the acoustically handicapped children in the integrated group was comparable to that of hearing children of average intelligence; (2) The findings in the areas of social adjustment did not present as favorable a picture for the acoustically handicapped as that of the hearing child; (3) In general, the parents of hearing children were in favor of the principles underlying the formation of the integrated group; (4) The regular classroom teacher and the special teacher agreed that the hearing impaired children had developed a greater understanding and ability to relate to and compete with hearing children. The teachers noticed gains in self-confidence, independence, and growth in social awareness. They suggested a limit of two deaf children per integrated class, and also recommended that a teacher be drawn from the school for the deaf as a special tutor for supplementary assistance for the deaf children.

Roger Elser (12) made a contribution in the area of social acceptance through a sociometric study of 1258 students
in the third through the seventh grades to determine the acceptance of hearing impaired children by their normally hearing classmates. Of these 1258 students, 45 were hard of hearing, displaying a loss greater than 35 db in the speech range 500, 1000, and 2000 cps. The results of the investigation indicated that the hearing impaired children as a group were not as well accepted and did not score as highly as did their normally hearing classmates. In the average classroom situation of 28 pupils, there was an average of nine normally hearing children who were more rejected as friends than the acoustically handicapped.

P. Green (21) made a study of mental abilities, reading ages, speech intelligibility, and preferred method of communication of 60 deaf and partially deaf boys from ages 16 to 20 during the 1958-1959 school year at the Manchester trade training school. Green found the average reading age to be 9.0 years and vocabulary age 10.0 years for students with a chronological age of 16.8 years. He concluded that "boys who consistently prefer signing were the more illiterate and of poor intelligence."

In an effort to determine the effects of a residential school upon the acoustically handicapped, Frisina and Quigley (18) made a comparative study of day students and residential students. They compared communication ability, educational achievement, and psycho-social adjustment of 67
males and 53 females. The students of the day school and the residential school were matched according to chronological age, intelligence, age at onset of hearing loss, and time spent in school.

From this study, Frisina and Quigley concluded that the day school students were significantly superior to the residential students in speech proficiency and lip reading. However, there were no significant differences found between the two groups in vocabulary, and no significant difference between the two groups in educational achievement. Frisina and Quigley, using the Hagerty-Olson-Wickman Behavior Rating Schedules, found the residential students to be better adjusted than the day students.

From these results, Frisina and Quigley concluded that living in a public residential school for the deaf is not, as a general rule, harmful to the development of the acoustically handicapped. The superiority of day school students in speech proficiency and lip reading was attributed to "lack of oralness of environment" in the residential schools.

These few studies concerning the educational placement of hearing impaired children, though limited in number, clearly indicate that school administrators should consider several factors before making a decision as to which educational program the hearing impaired child should be placed in. O'Connor and Van Wyk concluded that school administrators
should consider the following before placing the child: amount of residual hearing, intelligence, emotional stability, parental attitudes, and teacher guidance. Justman et al. found that the average gain made by acoustically handicapped children in academic work in the integrated program was comparable to that made by hearing children of average intelligence. Elser found in his sociometric study that the hearing impaired children were not as well accepted as their normally hearing classmates. Frisina and Quigley compared residential students with day students and concluded that living in a residential school was not harmful to the development of the acoustically handicapped.

Chapter V will not only summarize the history, theories, and studies relative to the educational placement problem, but will also offer recommendations for further studies concerning this problem.
Summary

Methods of treating the acoustically handicapped have progressed from 350 B.C., when the deaf were considered mentally incompetent, to the present era of education in which the aurally handicapped receive basically the same curriculum as the hearing child. After early educators, such as Bishop John of York, Cardano, Ponce de Leon, and others, discovered that the deaf were educable, oral and manual methods of instruction were devised. By the eighteenth century, these two methods of teaching were diametrically opposed to each other. This controversy, which originated in Europe, was so widespread that it was reproduced later in the United States. During the nineteenth century, the conflict between the oral method of instruction and the manual method of instruction gave rise to the combined method of instruction, an early effort to compromise the two opposed methods of instruction. From this compromise developed the controversy of the combined method of instruction versus the oral method of instruction which still exists today. As these different methods of instruction came into existence, different theories relative
to the education placement of the hearing impaired developed simultaneously.

The conflicting theories that existed during the early twentieth century still existed during the mid-twentieth century. During the mid-twentieth century, efforts to improve the method of educational placement of hearing impaired children have been made by prominent educators in the field of the education of the deaf and hard of hearing. These educators propose that each child be considered individually, utilizing the team approach. Factors influencing the placement of a hearing impaired child in an educational institution are: resources available, communication ability, emotional fiber, psychological factors, intelligence, age of onset of deafness, and amount of loss.

Although numerous theories have been expounded by educators of the acoustically handicapped concerning educational placement, only a few studies have been made regarding this problem by such authorities as O'Connor, Van Wyk, Justman et al., Elser, Green, and Frisina and Quigley. O'Connor's and Van Wyk's studies indicate that school administrators should consider the following factors before placing a child in an educational situation: amount of residual hearing, communication ability, emotional fiber, parental attitudes, intelligence, and facilities available.

In reference to the social adjustment of hearing impaired children in integrated programs, Justman et al. and
Elser found that the acoustically handicapped children were not as well adjusted socially as their hearing classmates. However, in the average classroom population of 28, one-third of the normally hearing children were more rejected as friends than the hearing impaired children.

In comparing day school students and residential school students, Frisina and Quigley found day students to be superior to residential students in communication ability. On the other hand they found that residential students were better adjusted socially than day students. No significant difference in educational achievement was noted between the two groups.

**Conclusion**

From the above studies and theories it is evident that school administrators should attack the problem of educational placement by using the team approach, utilizing the assistance of the school psychologist, speech and hearing therapist, audiologist, and other professional people who know the child's educational capabilities. Acoustically handicapped children should be considered individually and placed in an educational institution which meets the particular needs of the child.

**Recommendations for Further Studies**

A great need for further research exists in the area of education of the hard of hearing, since practically no
research has been done in this area. The following list exhibits areas related to the educational placement problem of the hard of hearing which offer opportunities for future research:

1. A comparative study of hard of hearing children educated in residential schools for the deaf with hard of hearing children educated in regular public schools comparing educational progress and school, social, and self adjustment.


3. A study of the acoustically handicapped person's adjustment in the hearing world after completion of formal education in public residential schools for the deaf, regular public schools, and colleges or universities.
REFERENCES


30. Medart, J. R., "Where are the Deaf to be Educated?" Volta Review, 56, 1954, 304-305.


